

## GAS TURBINE ENGINE COMBUSTOR CAN WITH TRAPPED VORTEX CAVITY

## ABSTRACT OF THE DISCLOSURE

A gas turbine engine combustor can downstream of  
5 a pre-mixer has a pre-mixer flowpath therein and  
circumferentially spaced apart swirling vanes  
disposed across the pre-mixer flowpath. A primary  
10 fuel injector is positioned for injecting fuel into  
the pre-mixer flowpath. A combustion chamber  
surrounded by an annular combustor liner disposed in  
supply flow communication with the pre-mixer. An  
annular trapped dual vortex cavity located at an  
upstream end of the combustor liner is defined  
15 between an annular aft wall, an annular forward wall,  
and a circular radially outer wall formed  
therebetween. A cavity opening at a radially inner  
end of the cavity is spaced apart from the radially  
outer wall. Air injection first holes are disposed  
through the forward wall and air injection second  
20 holes are disposed through the aft wall. Fuel  
injection holes are disposed through at least one of  
the forward and aft walls.